

THE DISTRIBUTION OF THE RANNOCH
BRINDLED BEAUTY (*LYCIA LAPPONARIA SCOTICA*
HARRISON) IN SCOTLAND

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The Rannoch Brindled Beauty (*Lycia lapponaria scotica*) was first discovered in Britain by Warrington, who found a male in Perthshire on 20 April 1871 (Guard Knaggs, 1871), and to judge from early succeeding records this may well have been at Rannoch. Since then it has almost always been regarded as a rather rare, highly localised species, largely restricted to "central highland" valleys such as Rannoch and upper Speyside; similar, therefore, to the known distribution of the Rannoch Sprawler (*Brachionycha nubeculosa* (Esp.)). However this impression is wrong and a succession of records have gradually revealed it to be more widespread than this.

In May 1984 a female was discovered by A. G. Payne at Leac Gorm, near Balmoral, Aberdeenshire (NO 22– 96–) and, following this up, a larva was found by M.R.Y. feeding on Bog Myrtle at the same site. Later in 1984 R.K.J. found larvae feeding commonly on Bilberry in Glen Loch, Perthshire (NN 98– 73–) and then more recently M. B. Davidson found a further female at Inchrory, Banff (NJ 17– 07–) in April 1985; this was in an area of mixed, dry, rather basic heathland, not including Bog Myrtle but including Bilberry and various heaths, and so similar in this respect to the habitat in Glen Loch. Leac Gorm, near Balmoral, by contrast, is a damp area of Bog Myrtle and *Molinia* in a stream valley bordered by drier, species-rich heather moorland.

These records seemed to extend the known distribution considerably and, more significantly, take it east of the Cairngorms, and this has prompted us to collate all the records that we could trace. The resultant map (Fig. 1) shows clearly that the species is much more widespread than usually believed and that it occurs in a wide band across the central highlands of Scotland.

There is no doubt that it is most common in the Rannoch area and in upper Speyside, where it seems to prefer damp moorland in stream valleys on the lower slopes of the hills, feeding as a larva on Bog Myrtle and various Heaths. This much has long been known and was clearly expressed by Cockayne (1904). In these habitats it is usually reported as emerging as an adult in April, or even late March in forward seasons.

The western records include a pair recorded on Bog Myrtle, near Connel, Argyll (NM 91– 32–) by Edwards and Chalmers-

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Hunt in April 1973 and males found by M. and G. Harper in 1960 in the Bog Myrtle slacks just east of Arisaig, Westerness (NM 6—6—), as well as several records from the moors near Fort William and from Ardnamurchan, where MacLaurin found larvae commonly on Bog Myrtle near Kilchoan (NM 4—6—) in August 1972. At this site some larvae were also found on Sallow and Ling.

Our own records can be seen to fit neatly at the eastern end of the central highland zone. Certainly the Deeside record is clearly east of the Cairngorm massif and as such is significant, but, although the Inchrory site is on the river Avon, a tributary of the river Spey, it is separated by only a low, open moorland pass of 2-3 km at 1500 ft from the Gairn, which is a tributary of the river Dee. Leac Gorm lies between the Gairn and the Dee and is only about 12 km from Inchrory, the intervening ground being mostly damp moorland where *L. lapponaria* might easily occur. This pass between the Avon and the Gairn may act as a regular route for passage between the Spey and Dee systems. Similarly Glen Loch, a tributary of the river Tay, comes close to the upper Geldie which drains into the Dee. The obviously anomalous localities on Fig. 1 are those of Flanders Moss, Stirling (NS 63—98—) (MacLaurin, 1974) and of Achnasheen and Achanalt (NH 21—60—) and Garve (NH 3—6—), Wester Ross. The original Flanders Moss record is for a female found on a Sallow bush in May 1924 but MacLaurin reports that he and his brothers could find no more, in spite of searching carefully in subsequent years. This record was then neglected, but on 21 July 1986 Christie found several nearly fully grown larvae there, feeding on Bog Myrtle, indicating that the colony is well established.

Unfortunately we have been unable to add further details to the record from Achnasheen and Achanalt, which is held by the Biological Records Centre and which dates from August 1980. At this date it must refer to larvae but no foodplant is noted. That from Garve is of a male, caught on 18 April 1978 in a Rothampsted Insect Survey trap, and these two records from Wester Ross suggest the moths occurrence along Strath Bran and Strath Garve. The next most north-western record is that of Howard (1978) for Tomdoun, Glengarry, Inverness-shire, which refers to an established colony at a stream valley where Bog Myrtle occurs, and where the main emergence period in 1978 was in mid-April. It seems reasonable to suggest that the species will be found in the intervening valleys, such as Glen Affric and Glen Strathfarrar, if a suitable search is made.

This species can obviously tolerate a wide range of climatic conditions, from the mild, damp region of Argyll and Westerness, where it occurs at sea level, to the more continental areas of upper Speyside and Deeside, at a height of 1500 ft. Furthermore, although

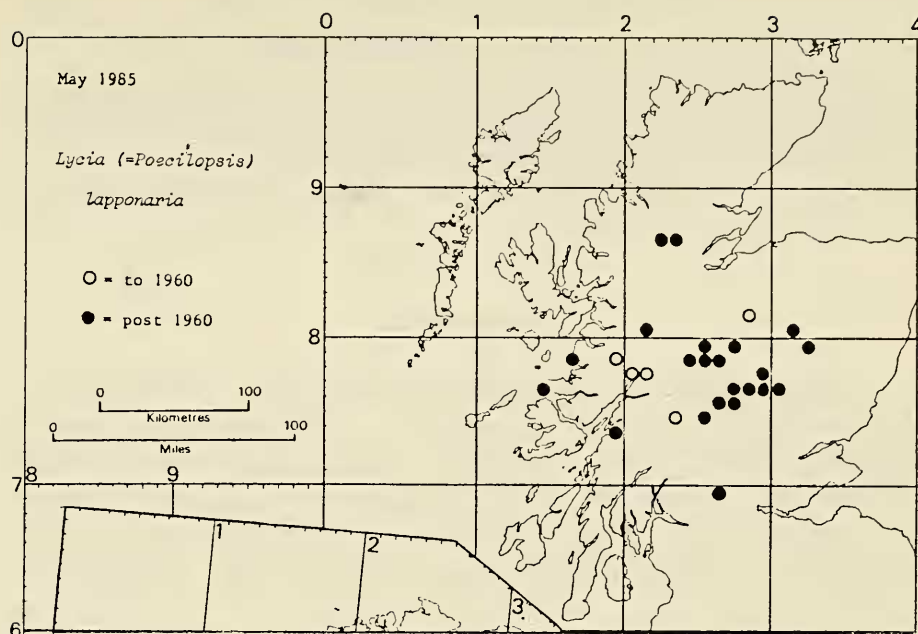


Fig. 1 The distribution of *Lycia lapponaria scotica* Harrison in Britain.

it seems to show a preference for Bog Myrtle and perhaps various Heaths, it will also readily accept Bilberry and Sallow as a larval foodplant, and this range of plants obviously occurs throughout the Highlands. In view of this it seems reasonable to suppose that it may be more widespread than current records show, and that the apparently anomalous localities on Fig. 1 are merely indicators of this situation. Since the moths emerge in April, or even late March, at a time when most entomologists visiting Scotland restrict themselves to Rannoch and Speyside, and since they are rather sluggish and cryptic, it is quite likely that they have been frequently overlooked. We believe that this species will eventually be found to be widespread through out the central Highland zone.

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References

- Cockayne, E. A. 1904. On *Nyssia lapponaria*. *Entomologist*, **37**: 149-150.

- Guard Knaggs, H. 1871. A new British Geometer. *Ent. mon. Mag.*, 7: 282.
- Howard, G. 1978. Macrolepidoptera of Glengarry and District (West Invernessshire) 1977-78. *Ent. Rec.* 90: 255-261.
- MacLaurin, A. 1974. Butterflies and Moths from Flanders Moss. *Glasg. Nat.*, 19: 85-90.

LYCIA ZONARIA HARRISON (LEPIDOPTERA: GEOMETRIDAE)
LARVAL FOODPLANT IN SCOTLAND — On a trip to the west coast of Scotland at the end of July 1986 I located a large number of larvae of this species feeding on yellow flag (*Iris pseudacorus* L.). The larvae were nearly full grown and quite easy to see; they were feeding in daylight eating from the straight edge of the leaf and producing characteristic semicircular holes one to two centimetres across. I can find no modern reference to flag as a foodplant for this species, but I received the impression that it was the preferred food in this locality. COLIN HART, Fourpenny Cottage, Dungates Lane, Buckland, Betchworth, Surrey.

DELTOTE BANKIANA FABRICIUS (LEPIDOPTERA: NOCTUIDAE) IN SOUTH-EAST KENT — On the night of 27th June 1986 in Ham Street Woods I was surprised to find a single specimen of this species attracted to light. This was a warm night with little wind and the fine conditions produced 106 species of macrolepidoptera including about fifty specimens of *Moma alpium*. COLIN HART, Fourpenny Cottage, Dungates Lane, Buckland, Bechworth, Surrey.

AN UNUSUAL VARIANT OF THE CATERPILLAR OF THE LIME HAWK, MIMAS TILIAE (L.) (LEPIDOPTERA, SPHINGIDAE). — On 18th Sept. 1985 a hawkmoth caterpillar, which had been found on a tree on Strand on the Green, Chiswick was handed to me for identification. It was small, little more than 3 cm. long, and I thought obviously less than half-grown. Its most noteworthy feature was the lack of lateral stripes save one at the rear; the tail was bright blue. I could find no illustration to match it. I took the caterpillar home and supplied it with a variety of foliage: lime, elm, willow, poplar, apple etc. all of which were refused. I then lost it but later found it heading downstairs from my study. Clearly it wished to pupate and was therefore supplied with soil in a jar. By the 25th it had pupated and its small size at this stage indicated it was probably a lime hawk and so it proved to be. On the 3rd June 1986 or a little earlier a female with rather misshapen wings and damaged mouth parts emerged and promptly laid sterile bright green eggs. — B. VERDCOURT, Royal Botanic Gardens, Kew, Richmond, Surrey.